Fact Sheet:

May 1997

(LL 17)

THREATENED, ENDANGERED, AND SENSITIVE (TES) SPECIES AUTOMATED INFORMATION SYSTEM FOR U.S. ARMY LANDS

The Problem

More than 400 threatened, endangered, and sensitive (TES) species are known or suspected to reside on Army lands. Little information is available on these species for management decisions. Installation land managers need: (1) access to information on the biological needs of TES species, (2) a mechanism to periodically evaluate and track information on abundance, occurrence, land restrictions, mission constraints, and compatible management activities, and (3) a reporting capability that provides periodic summaries and status reports to account for these species. As the number of species increases, acquiring, maintaining, and reporting this TES-related information becomes more of a burden to the military.

The Technology

The U.S. Army Construction Engineering Research Laboratories (CERL) has been working on a data system to develop systematic, cost-effective capabilities to track the status, trends, mitigation/ management activities, and expenditures of TES species Army-wide. Objectives of the system include: (1) enhancing the Army's ability to meet environmental compliance and reporting requirements under the Endangered Species Act (ESA), (2) establishing a mechanism for accountability to the U.S. Fish and Wildlife Service (USFWS), Congress, and the

public regarding Army stewardship of TES species and critical habitats, (3) evaluating constraints placed on the military mission by TES, (4) providing information sources to help installation land managers with management decisions, and (5) providing a centralized storage mechanism for annual information collected from all installations.

An evaluation of Army TES information needs helped researchers develop standardized reporting formats and analyses for Army-wide TES information. Researchers have also refined a survey instrument to acquire information from individual installations and other TES information sources. Stored in a centralized database, the information is provided to the system's three graphical user interface (GUI) applications. The first application, the Installation-Specific Tracking Information (TRACKER), allows installations to access, update, maintain, and report TES information. It allows installations, Headquarters, and Major Commands (MACOMs) to easily produce summary information on TES species on Army lands. Access to detailed biological information on individual species is available through the Species-Specific Biological Information (SSBI) Tool. The third application, the Biodiversity and TES Species (BioTES) Experts Tool, provides point-of-contact information in a variety of biological/ecological fields.

Benefits/Savings

The technology enhances the Army's ability to meet compliance and reporting requirements, cultivates accountability, improves TES evaluation capabilities, and improves management decision-making. This system can decrease the time and effort required for Army personnel locating information on TES species, and can also provide a centralized storage mechanism for all pertinent information on Army installations and associated TES species.

Status

Progress has been made in the following areas: (1) evaluating other TES information systems, (2) evaluating Army-wide TES information and reporting

needs, (3) developing a sound database structure and design, (4) developing the three applications, and documentation.

CERL coordinated with other Federal partners and non-Governmental organizations to evaluate the applicability of existing TES information management systems for the Army. The Nature Conservancy's Biological Conservation Data System was studied in detail. CERL has moved forward with developing a TES information system appropriate for Army needs. Cooperative efforts are also underway to codevelop a TES Species Management System with the Bureau of Land Management.

The information and reporting needs of the Army for TES species information were initially not well known or standardized. Discussions with installations, MACOMs, and Headquarters personnel have defined the information needs more clearly. In addition, standardized report formats are currently being developed in response to those needs.

The TES database is a valuable source of information about TES species on Army installations. The database has three years of TES information (i.e, 1992, 1995, and 1996) and includes more than 900 species occurrence records from 200 installations.

Three functioning prototype applications have been sent to the sponsor and the MACOMS. We currently await funding for demonstration and validation. Further information is available on each of the applications in available on each of the applications in CERL ADP reports 92/20 (SSBI), 97/21 BioTES), and 97/46 (TRACKER).

Points of Contact

CERL TES System principal investigator is Dr. Alison Hill, COMM 217-398-5218; toll-free 800-USA-CERL; FAX 217-373-4520; e-mail a-hill@cecer.army.mil; or CERL, ATTN: CECER-LL-N, P.O. Box 9005, Champaign, IL 61826-9005.

For additional information on TES, contact Mr.Scott Belfit COMM 410-671-1561; or Army Environmental Center, ATTN: SFIM-AEC-ECN, Aberdeen Proving Ground, MD 21010-541.

Visit the CERL homepage at http://www.cecer.army.mil